

短 報

Yasuhiko ENDO^a, Tatsuyuki OHBA^b, Makoto AMANO^b and Yuki MIKANAGI^b: **A New Hybrid *Rubus ribisoideus* Matsum. \times *R. trifidus* Thunb. ex Murray (Rosaceae)**ビロードカジイチゴとカジイチゴの新雑種 (遠藤泰彦^a, 大場達之^b, 天野 誠^b, 御巫由紀^b)

A new natural hybrid between *Rubus ribisoideus* Matsum. and *R. trifidus* Thunb. ex Murray was found on Kozu Isl. of the northern Izu Isls., Japan (Fig. 1).

Rubus ribisoideus has glabrous receptacles (Fig. 2A, Table 1), erect filaments, and flowers facing downwards. *Rubus trifidus* has hairy receptacles (Fig. 2B, Table 1), spreading filaments, and flowers facing upwards. Plants of their hybrid origin show combinations of the features of the putative parents. Some hybrid plants have hairy receptacles (Fig. 2C) and erect filaments (Table 1). The other hybrid plants have glabrous receptacles and spreading filaments (Table 1). Styles of the hybrids are intermediate in length between those of the parental species (Fig. 3). Flowers of the hybrids usually face sideways. Pollen stainability of the hybrids is less than 10 % (Fig. 4, Table 1).

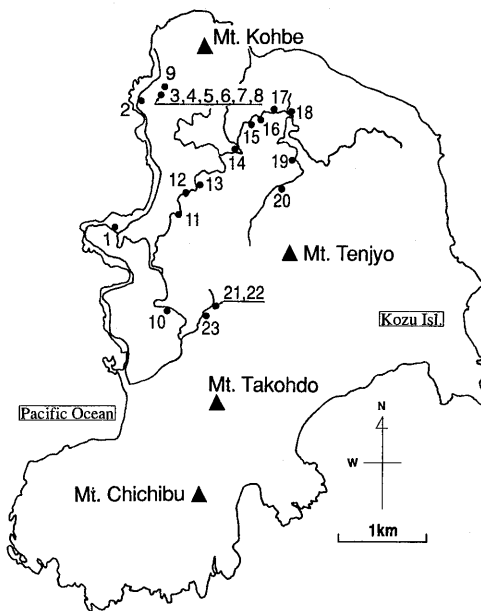


Fig. 1. Collection sites of *Rubus ribisoideus* (3–6, 18, 19, 21–23), *R. trifidus* (1, 2, 7–11, 14, 17, 20) and their hybrid (12, 13, 15, 16). Lines inside the outline of the island are traffic roads.

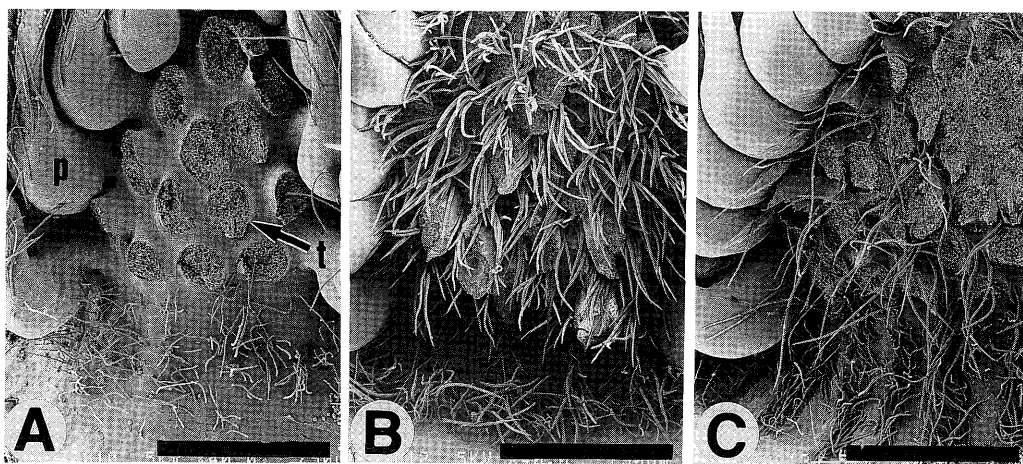


Fig. 2. SEM photos of receptacles of *Rubus ribisoideus* (A), *R. trifidus* (B), and *R. ribisoideus* \times *R. trifidus* (C). Pistils are cut off to show the pubescence. Voucher specimens. A; Endo, Amano and Mikanagi 2872 (CBM). B; E., A. and M. 2878 (CBM). C; E., A. and M. 2884 (CBM). Abbreviations: p = pistil. t = trace of pistil stipe cut off. Scale bar = 1 mm.

Table 1. Floral morphology and pollen stainability of *Rubus ribisoideus*, *R. trifidus* and their putative hybrid

Collection site ^a	Filament shape ^b	Receptacle pubescence ^c	Pollen stainability (%) ^d	Voucher specimens ^e	Species name ^f
3	e	—	98.3	2919	<i>R.r.</i>
4	e	—	96.6	2872	
5	e	—	89.4	2920	
6	e	—	98.0	2912	
18	e	—	97.3	2877	
19	e	—	95.1	2876	
21	e	—	85.8	2925	
22	e	—	85.5	2874	
23	e	—	85.2	2926	
12	e	+	7.2	2884	<i>R.r.</i>
15	e	+	4.6	2880	×
16	e	+	0.8	2879	<i>R.t.</i>
13	s	—	9.5	2882	
1	s	+	91.6	2870	<i>R.t.</i>
2	s	+	98.6	2924	
7	s	+	99.2	2922	
8	s	+	98.3	2923	
9	s	+	99.6	2873	
10	s	+	98.7	2886	
11	s	+	98.4	2885	
14	s	+	99.3	2881	
17	s	+	97.4	2878	
20	s	+	90.7	2875	

^a Numbers indicate the collection sites referred in Fig. 1.^b e = erect; s = spreading.^c + = pubescent; — = glabrous.^d Stainability was scored with more than one thousand pollen grains per one flower.^e Specimens collected by Endo, Amano and Mikanagi in 1992, and preserved in CBM.^f *R.r.* = *Rubus ribisoideus*; *R.t.* = *R. trifidus*.

The hybrid plants have subterranean stolons, as their parental species have, and may do vegetative reproduction with the stolons.

We would like to thank Emeritus Prof. H. Ohashi of Tohoku University for comments on the manuscript.

Specimens examined:

Rubus ribisoideus Matsum.

Japan, Izu Isls., Kozu Isl. Endo, Amano & Mikanagi 2872, 2874, 2876, 2877, 2912, 2919, 2920, 2925, 2926 (CBM).

R. trifidus Thunb. ex Murray

Japan, Izu Isls., Kozu Isl. Endo, Amano & Mikanagi 2870, 2873, 2875, 2878, 2881, 2885, 2886, 2922, 2923, 2924 (CBM).

R. ribisoideus Matsum. × *R. trifidus* Thunb. ex Murray

Japan, Izu Isls., Kozu Isl. Endo, Amano & Mikanagi 2879, 2880, 2882, 2884 (CBM).

伊豆諸島神津島において、バラ科キイチゴ属のビロードカジイチゴ（ハチジョウカジイチゴ）とカジイチゴの雑種と推定される植物を発見した。このような組み合わせの雑種についてはこれまで知られていなかったもので報告する。

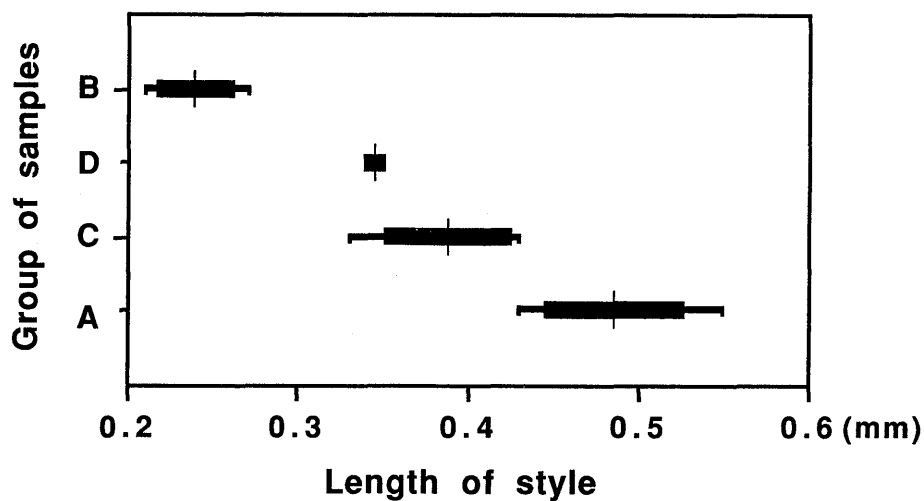


Fig. 3. Ranges, mean values and standard deviations of stylar length of *Rubus ribisoideus* (A), *R. trifidus* (B) and their putative hybrids (C, D).

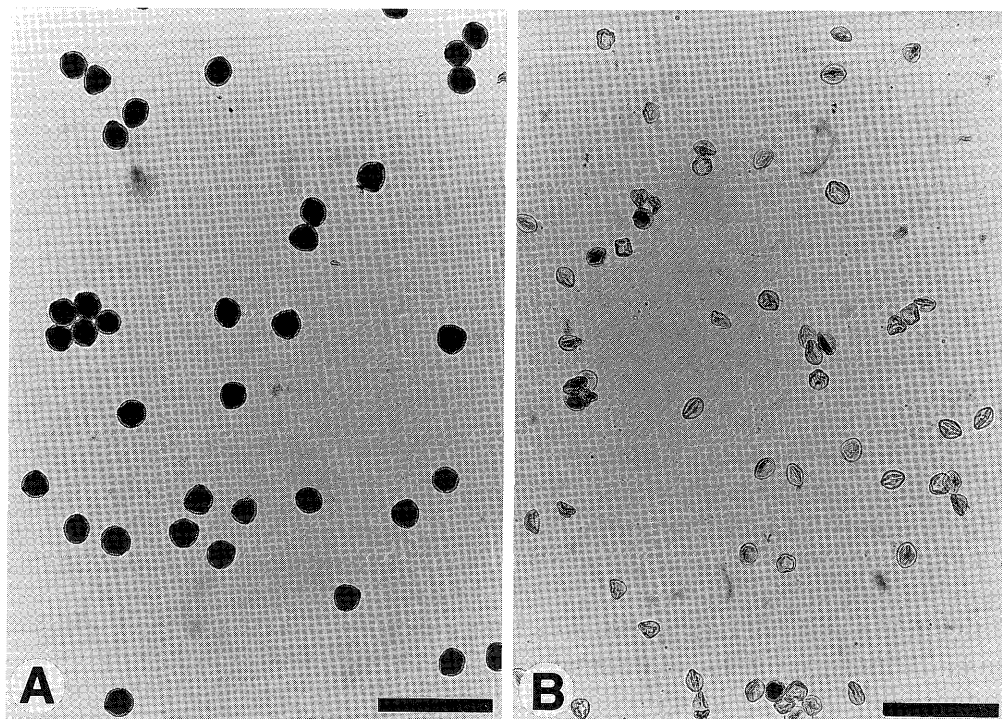


Fig. 4. Pollen grains, treated with the aniline-blue-lactophenol technique, of *Rubus trifidus* (A) and *R. ribisoideus* \times *R. trifidus* (B). Voucher specimens. A; Endo, Amano and Mikanagi 2922 (CBM). B; Endo, Amano and Mikanagi 2880 (CBM). Scale bar = 0.1 mm.

ビロードカジイチゴでは、花は下向きに咲き、花托は無毛で、花糸は開花時に直立する。一方、カジイチゴでは、花は上向きに咲き、花托は有毛で、花糸は開花時に平開する。雑種では、花は通常横向きに咲くという特徴を持ち、花托は有毛で、花糸は開花時に直立するか、あるいは、花托が無毛で、花糸は開花時に平開する。雑種の花柱の長さは、ビロー

ドカジイチゴとカジイチゴの中間の値をとる。雑種の花粉の染色性は10%に達しない。

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Hideaki OHBA^a and Hirokazu TSUKAYA^b: A Taxonomic Note on *Habenaria albomarginata* King & Pantl. (Orchidaceae)

Habenaria albomarginata King & Pantl. (ラン科) についての考察 (大場秀章, 塚谷裕一)

Recent botanical explorations in the montane and alpine zones of the Nepal Himalaya done by Department of Plant Resources, Nepal and University of Tokyo jointly gathered a great number of orchidaceous specimens. The second author, Tsukaya, identified them and prepared some of them in local floras (Tsukaya 1999, 2000). Recently a terrestrial orchid resembling the species of *Habenaria* or *Platanthera* was collected in several localities. This is determined *Habenaria albomarginata* described from the Sikkim Himalaya by King and Pantling (1898), and now it is known to be distributed in East Himalaya (Nepal to Bhutan through Sikkim) and SE Tibet. From Nepal it was collected by Stainton, Sykes and Williams in central and Beer in east (Hara et al. 1978).

Habenaria albomarginata has attractive flowers of which sepals and petals are green with conspicuous white margins. In Nepal *Habenaria albomarginata* occurs mainly in the alpine regions of the central and east zones as shown in 'specimens examined', and grows in alpine vegetations with *Kobresia* spp. and some apiaceous species on slopes facing east to west.

King and Pantling (1898) classified this in the genus *Habenaria* but Kränzlin (1901) transferred it to *Platanthera*. Recently Banerji

and Pradhan (1984) removed it to *Peristylus*.

As shown in Fig. 1 the flower of *Habenaria albomarginata* is different from typical forms of both *Habenaria* and *Platanthera*. *Habenaria albomarginata* has petals shorter than lateral sepals. The lateral and dorsal sepals are reflexed. The petals are free from the dorsal sepal and form a hood over the column. The posture of the dorsal sepal is different from the most species of *Habenaria* in which the dorsal sepal joins its petals to form hood over column. The lip is very shallowly trilobed or almost simple. But the spur is short, usually less than the half length of the ovary. In the column the upper half consists of a pair of anthers with lateral cleft, and the lower half is the stigmatic surface with a straight rostellum at the upper side. The stigma is not extruded from the column. It has two or more pollinia of which viscidia are small, hemispheroid and sometimes borne on the rostellum. The caudicle of the pollinia is short. The column structure as described above are much similar to those of *Habenaria* than *Platanthera*, particularly in the lack of extremely wide viscidium. Though the features of the flowers in short racemes, the undivided rostellum and the inconspicuously convex stigma are different from those of the typical representatives of *Peristylus*, most of the floral features agree